



DURABLE AIR DRYING ALKYD OR OLEORESINOUS PRIMER FOR THE PROTECTION OF STEEL

1 SCOPE

This specification applies to durable air drying alkyd or oleoresinous primers for application to steel structures on which optimum surface preparation can be achieved.

2 BACKGROUND

- To obtain a broad overview of the Australian Paint Approval Scheme (APAS), refer to APAS document AP-D001.
- To obtain an overview of restricted ingredients in APAS certified products, refer to APAS document AP-D123.
- To obtain the current list of APAS participating manufacturers (and suppliers) and resellers, refer to APAS document AP-D152.
- To obtain an overview of how to participate in the APAS, refer to APAS document AP-D177.
- APAS approval to this specification may be gained by compliance with the requirements detailed in this specification and those in APAS document AP-D192.

3 DESCRIPTION AND GUIDE FOR USERS

3.1 General Requirements

- This specification applies to durable air drying alkyd or oleoresinous primers for application to steel structures on which optimum surface preparation can be achieved.
- The systems are intended to provide a short to medium-term service life of approximately 2 - 10 years under very low or low corrosivity environmental conditions (Categories C1 and C2 of AS 2312.1) depending on the system chosen. For alternative service lives, refer to Table 6.3 of AS 2312.1.
- The manufacturer's technical / product data sheet should confirm that the exposure conditions to which the coating system is to be exposed is within the capabilities of that system.
- Where surface preparation is likely to be marginal and surface tolerant coatings are required, reference should be made to APAS specification AP-S0156/2.

3.2 Sub-Classes

- This specification does not incorporate any sub-class.

3.3 Basis of this Specification

- This specification is based on AS/NZS 3750.19 (Type 1) with the following modification:
 - Minimum Volume Solids set
 - Increase in exterior durability requirements from 24 to 36 months
- Paints approved under this specification are referenced as Paint Reference Number (PRN) C05 and comply with ALK1 and ALK6 of Table 6.3 of AS 2312.1.

4 REFERENCED DOCUMENTS

- The following standards are referenced in this document:
 - AS/NZS 1580** – Paints and related materials: Methods of test
 - AS 2312.1** – Guide to the protection of structural steel against atmospheric corrosion by the use of protective coatings – Part 1: Paint Coatings
 - AS/NZS 3750.19**– Paints for steel structures – Part 19: Metal Primer – General Purpose

These documents may be purchased through the Reference Standards Australia website:

<https://www.standards.org.au/>

- The Poisons Standard June 2021:** Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) No. 33, Part 2: Control on Medicines and Poisons, Section Seven / Appendix I Paint or Tinters

This document is available from the Australian Government Federal Register of Legislation website at:

<https://www.legislation.gov.au/Details/F2021L00650>

- The following APAS documents are referenced in this document:
 - AP-D001 Rules Governing How APAS® Operates
 - AP-D123 Restrictions on Ingredients in Product Formulations
 - AP-D152 APAS® Participating Manufacturers and Resellers
 - AP-D177 Rules Governing How Product Manufacturers participate in APAS®
 - AP-D181 Volatile Organic Compounds (VOC) Limits
 - AP-D192 Rules Governing APAS® Product Certification Scheme
 - AP-S0156/2 Epoxy Mastic High Build Two-Pack Coating for Rusted Steel - Colours

All APAS documents are available for download from the APAS website: <https://vs.csiro.au/apas/documents/>

All APAS specifications are available for download from the APAS website: <https://vs.csiro.au/apas/specifications/>

5 COMPOSITIONAL REQUIREMENTS

5.1 Binder

- The binder shall typically be comprised of air-drying alkyd or oleoresinous resins.

5.2 Volatiles

- The volatile portion shall typically be comprised of hydrocarbons.
- For VOC content restrictions, refer to APAS document AP-D181.



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5.3 Pigmentation

- a) The pigmentation shall be chosen to impart the properties detailed in clause 7, Table 1 below.

5.4 Colour

- a) Products approved under this specification are normally available in a limited range of colours e.g., red oxide.

6 PRODUCT APPROVAL REQUIREMENTS

6.1 General Requirements

- a) The product and its application for approval shall comply with the relevant requirements of APAS document AP-D192 during the life of the approval.

6.2 Technical Requirements

- a) The product shall comply with **all** the requirements of clause 7, Table 1 below.

6.3 Health and Safety Requirements

- a) The manufacturer's Safety Data Sheet (SDS) must be studied closely prior to using the product and complied with during use of the product.
- b) As products covered by this specification typically contain solvents, the paint is considered flammable and should be stored away from all sources of heat or ignition.
- c) Containers should be resealed immediately after use and good ventilation provided during use to minimise the risk of fire or explosion and the long-term toxic effects of absorption of the vapour into the lungs.
- d) Care should be taken to avoid contact with the skin using protective clothing and barrier cream. All pumping equipment should be adequately earthed. It is anticipated that most of these products would be applied by operators in well ventilated spray booths or in the field by operators with adequate safety equipment.
- e) Products intended for sale in Australia shall comply with all the requirements of the SUSMP. Products intended for sale in other countries shall comply with all local WHS and environmental requirements.
- f) The product shall comply with all requirements of clause 6.3 and 6.4 of APAS document AP-D192.



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7 TABLE 1: PERFORMANCE PROPERTIES

TEST	AS/NZS 1580 METHOD	REQUIREMENTS
General Requirements	AS/NZS 3750.19	Shall comply with all the requirements of clause 5 Materials Requirements (except as modified below). All results shall be reported.
Volume Solids	301.2	Minimum 40%. Note: May be calculated from theoretical raw material data.
Thinning or Mixing Properties	208.1	Using 10% of manufacturers recommended thinner, there shall be no signs of incompatibility.
Viscosity	214.x	State method and record results.
Aged Application	205.2 or 205.4	Following storage for 12 months at routine conditions, the material shall show satisfactory application properties and the dry film shall be free of defects.
Colour - Visual Comparison	601.1	Approximate match.
Specular Gloss (60°)	602.2	To be recorded.
Resistance to Natural Weathering	AS/NZS 3750.19 clause 5.5.5 457.1	When exposed at all three exposure sites (as listed in APAS document AP-D192, clause 12) the limits stated in Table 2 of AS/NZS 3750.19 shall be achieved after 36 months . All results shall be reported.
VOC Content	APAS AP-D181	Refer to APAS document AP-D181 for method and limits. If the APAS specification is not listed on AP-D181, a declaration of VOC content is still required .



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8 APPENDIX A

Document History

Status: Current
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Document Version No.:	Date Published:	Summary of Changes:
9	14-09-2021	<ul style="list-style-type: none">• General format changes• Updated background information in clause 2• Updated SUSMP information• Updated APAS website information
8	21-12-2020	<ul style="list-style-type: none">• Addition of Appendix A Document History and removal of the Editorial Note previously used in specification versions• Updated document to the current format• Updated internal and external document references (AS 4089 superseded by AS/NZS 3750.19)• Inclusion of VOC Content requirement to Table 1 Performance Properties• Addition of "People + Product = Protection" to Footer
7	18-11-2003	<ul style="list-style-type: none">• Removed reference to GPC and incorporated a general format update• Adopted AS 4089 as the base for performance requirements
6	23-05-2001	<ul style="list-style-type: none">• Initiated the second stage of the move to new specification numbering with prominence given to the new number (previously GPC-C-29/2 Type 1)